

## **Causal Factors for 65072 WIGGINS PLACE For Not meeting a Standard for Public Land (Rangeland) Health**

The Rangeland Health Assessment, Evaluation and Determination were completed for the Wiggins Allotment #65072 in September 2003 and the South Wiggins allotment in September 2004. These allotments were combined in 2004. The majority of the public land within the allotment met the New Mexico Standards for Public Land Health; however, the public land in the East Pasture did not meet the Biotic standard.

The grazing permit for this allotment transferred to a new permittee in late March 2004 and all livestock were removed prior to April. The allotment has been in non-use status from March 2004 to October 2004.

Based on the available data, the evaluation and further field reviews made from September 2003 to the present, the causal factor for not meeting the biotic standard is a combination of factors. The livestock management practices of the previous permittee, intensified drought conditions from 1999 to 2003 and the continuing encroachment of invasive plants primarily mesquite (*Prosopis* spp.) are intertwined causal factors.

Livestock management practices (of the previous permittee) that contributed to not meeting the biotic standard, include poor maintenance of the allotment's infra-structure (primarily fences) resulting in heavier than expected grazing pressure on the East pasture and a stocking rate exceeding what resource conditions could support.

The soil within the East pasture is primarily sand and deep sand that has a low water holding capacity/water availability. During drought conditions the deep rooted mesquite out-competes fibrous rooted herbaceous plants for available water. This characteristic along with the prior heavy utilization of forage in the East Pasture during drought conditions has impacted plant recovery.

Field observations from May 2004 to present however, indicate that plant recovery is progressing. A higher than normal precipitation regime this year has promoted this recovery. The attached photographs track this progression from September 2003 to mid October 2004.

In order to continue the improvement within the East Pasture the following guidelines are being implemented: The East Pasture will be totally deferred from grazing use through August 2006; forty-six (46) animal units (AU's) will be placed into temporary non-use status during this period to avoid the over stocking for the remainder of the allotment; no

grazing use in the Middle #2 pasture will be allowed until the interior fence between the Middle #2 and East Pastures is returned to a serviceable condition.

/s/ T. R. KREAGER

Assistant Field Manager

10/22/2004

Date

65072 East Pasture – Trend Plot September 2003



65072 East Pasture – Trend Plot May 2004





65072 East Pasture – Trend Plot October 2004



65072 East Pasture – Transect 1 September 2003





65072 East Pasture – Transect 1 May 2004



65072 East Pasture – Transect 1 October 2004

